

Notice of Allowability

Application No.

10/813,274

Examiner

Callie E. Shosho

Applicant(s)

HAMA ET AL.

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 9/19/07 and telephonic interview conducted 9/27/07.
2. ☒ The allowed claim(s) is/are 1,2,4-11,13-15,17,19 and 20.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>9/27/07</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

(1) Claim 1, line 6, after "adding" and before "water", insert "only".

(2) Claim 1, line 6, after "water" and before "to", delete "and/or an organic solvent".

(3) Claim 1, line 10, after "(A)", delete ", and wherein only water is added to the resulting kneaded mixture in step (B)".

(4) Claim 6, line 5, after "pigment," and before "a", insert "and".

(5) Claim 7, line 3, after "sulfide," and "a", insert "and".

(6) Claim 9, line 3, after "polymer," and before "a", insert "and".

(7) Claim 19, line 6, after "adding" and before "an", delete "water and/or" and insert "only".

(8) Claim 19, line 11, delete “wherein only an organic solvent is added to the resulting kneaded mixture in step (B)”.

2. Authorization for this examiner’s amendment was given in a telephone interview with Stefan Koschmieder on 9/27/07.

Statement of Reasons for Allowance

3. The present claims are allowable over the “closest” prior art Ohta et al. (U.S. 4,597,794) and Inoue et al. (U.S. 6,412,940) for the following reasons:

Ohta et al. disclose process for preparing aqueous dispersion of pigment comprising (A) kneading, using a sand mill, a mixture of pigment, organic solvent, water, neutralizing agent, and vinyl polymer obtained from salt-forming monomer, i.e. acrylic acid, wherein mixture has concentration of solid matter of 50%, (B) adding organic solvent and water to dilute the kneaded mixture, and (C) dispersing the solid matter. It is disclosed that the pigment, solvent, water, neutralizing agent, and polymer are added separately to the sand mill before kneading.

However, Ohta et al. requires adding solvent and water to the kneaded mixture in step (B) which is in direct contrast to present claim 1 that now requires adding only water to the resulting kneaded mixture in step (B) and in direct contrast to present claim 19 that now requires adding only an organic solvent to the resulting kneaded mixture in step (B). There is no disclosure or suggestion in Ohta et al. of adding only water or only organic solvent to the kneaded mixture in step (B). Further, there is no disclosure in Ohta et al. regarding the temperature during kneading in step (A) and thus, no disclosure that the temperature during kneading is at most 50 °C as required in present claim 2. Further, there is no disclosure in Ohta et al. regarding the weight average molecular weight of the polymer and thus, no disclosure or suggestion that the polymer has weight average molecular weight of 52,000-300,000 as required in present claim 11. Additionally, Ohta et al. disclose adding the pigment, solvent, water, neutralizing agent, and polymer separately before kneading which is in direct contrast to present claim 15 that requires before kneading, mixing the polymer, solvent, water, and neutralizing agent in separate container

to form pre-mixture, supplying pre-mixture to the kneader, and thus, supplying the pigment to kneader. There is no disclosure in Ohta et al. of first making pre-mixture of polymer, solvent, water, and neutralizing agent which is then added to kneader followed by addition of the pigment. Further, there is no disclosure in Ohta et al. of kneading with a kneader and further kneading with a roll mill as required in all the present claims. Thus, there is also no disclosure in Ohta et al. that the roll mill is used while adding water to the kneaded mixture as required in present claim 20.

Inoue et al. disclose method of preparing ink comprising adding pigment to aqueous solution incorporated with dispersant, dispersing the pigment using combination of machines that includes kneader and roll mill, adding water, solvent, and base, stirring, and then filtering.

However, there is no disclosure in Inoue et al. that the kneaded mixture has solids content of 50-80% as required in all the present claims. Further, Inoue et al. disclose adding neutralizer after kneading which is in direct contrast to the present claims that all require kneading a mixture comprising pigment, polymer, neutralizer, organic solvent, and water. Additionally, Inoue et al. requires adding solvent and water to the kneaded mixture, which is in direct contrast to present claim 1 which now requires adding only water to the resulting kneaded mixture and in direct contrast to present claim 19 that now requires adding only an organic solvent to the resulting kneaded mixture. There is no disclosure of adding only water or only organic solvent to the kneaded mixture in Inoue et al. Further, there is no disclosure in Inoue et al. regarding the temperature during kneading in step (A) and thus, no disclosure that the temperature during kneading is at most 50 °C as required in present claim 2. Further, there is no disclosure in Inoue et al. regarding the weight average molecular weight of the polymer and thus, no disclosure or

suggestion that the polymer has weight average molecular weight of 52,000-300,000 as required in present claim 11. Additionally, there is no disclosure in Inoue et al. of first making pre-mixture of polymer, solvent, water, and neutralizing agent which is then added to kneader followed by addition of the pigment as required in present claim 15. There is also no disclosure in Inoue et al. that the roll mill is used while adding water to the kneaded mixture as required in present claim 20.

Thus, it is clear that Ohta et al. and Inoue et al., either alone or in combination, do not disclose the present invention.

Further, applicants' amendment filed 9/19/07 overcomes the 35 USC 112, second paragraph rejection of record.

In light of the above, it is clear that the rejections of record are untenable and so, the present claims are passed to issue.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
9/27/07